Archives of

Microbiology

Founded in 1930 as
Archiv für Mikrobiologie

Volume 129 1981

Managing Editors:
G. Drews · S. C. Rittenberg · H. G. Schlegel

Editorial Board

K. Altendorf, Osnabrück
W. Boos, Konstanz
V. Braun, Tübingen
N. G. Carr, Liverpool
G. Drews, Freiburg i. Br.
K. Esser, Bochum
S. Fukui, Kyoto
G. Gottschalk, Göttingen
R. Hütter, Zürich
J. L. Ingraham, Davis
H. W. Jannasch, Woods Hole
D. P. Kelly, Coventry
E. N. Kondratieva, Moscow
H. Larsen, Trondheim
M. Mandel, Houston
B. Marrs, Saint Louis
B. A. McFadden, Pullman
N. Pfennig, Konstanz
M. R. J. Salton, New York
H. G. Schlegel, Göttingen
R. Y. Stanier, Paris
H. Stolp, Bayreuth
R. Thauer, Marburg

Springer International

The exclusive copyright for all languages and countries, including the right for photomechanical and any other reproductions, also in microform, is transferred to the publisher.

The use of registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Authors of this journal can benefit from library and photocopy fees collected by WORT if certain conditions are met. If an author lives in the Federal Republic of Germany or in West Berlin it is recommended that he contacts Verwertungsgesellschaft WORT, Abteilung Wissenschaft, Goethestrasse 49, D-8000 München 2, for detailed information.

Die in der Zeitschrift veröffentlichten Beiträge sind urheberrechtlich geschützt. Alle Rechte, insbesondere das der Übersetzung in fremde Sprachen, vorbehalten. Kein Teil dieser Zeitschrift darf ohne schriftliche Genehmigung des Verlages in irgendeiner Form – durch Fotokopie, Mikrofilm oder andere Verfahren – reproduziert oder in eine von Maschinen, insbesondere von Datenverarbeitungsanlagen, verwendbare Sprache übertragen werden.

Auch die Rechte der Wiedergabe durch Vortrag, Funk- und Fernsehsendung, im Magnettonverfahren oder ähnlichem Wege bleiben vorbehalten.

Fotokopien für den persönlichen und sonstigen eigenen Gebrauch dürfen nur von einzelnen Beiträgen oder Teilen daraus als Einzelkopien hergestellt werden. Jede im Bereich eines gewerblichen Unternehmens hergestellte oder benützte Kopie dient gewerblichen Zwecken gem. § 54 (2) UrhG und verpflichtet zur Gebührenzahlung an die VG WORT, Abteilung Wissenschaft, Goethestraße 49, D-8000 München 2, von der die einzelnen Zahlungsmodalitäten zu erfragen sind.

Autoren dieser Zeitschrift können unter gewissen Voraussetzungen in die Individualausschüttung von Mitteln aus der Bibliothektantieme und dem Fotokopieraufkommen mit einbezogen werden. Genaue Informationen erteilt die Verwertungsgesellschaft WORT, Abteilung Wissenschaft, Goethestraße 49, D-8000 München 2.

Die Wiedergabe von Gebrauchsnamen, Handelsnamen, Warenbezeichnungen usw. in dieser Zeitschrift berechtigt auch ohne besondere Kennzeichnung nicht zu der Annahme, daß solche Namen im Sinne der Warenzeichen- und Markenschutz-Gesetzgebung als frei zu betrachten wären und daher von jedermann benutzt werden dürften.

Springer-Verlag Berlin Heidelberg New York

Printed in Germany by Wiesbadener Graphische Betriebe GmbH, D-6200 Wiesbaden

© by Springer-Verlag Berlin · Heidelberg 1981

Contents

Ali, H., Niel, C., Guillaume, J. B.
The Pathways of Ammonium Assimilation in *Rhizobium meliloti* 391

Andersen, K., Tait, R. C., King, W. R.
Plasmids Required for Utilization of Molecular Hydrogen by *Alcaligenes eutrophus* 384

Aronson, A. I., s. Srivastava, O. P. 227

Aronson, A. I., s. Wright III, W. 160

Baker, E. R., McLaughlin, J. J. A., Hutner, S. H., DeAngelis, B., Feingold, S., Frank, O., Baker, H.
Water-Soluble Vitamins in Cells and Spent Culture Supernatants of *Poteriochromonas stipitata, Euglena gracilis,* and *Tetrahymena thermophila* 310

Baker, H., s. Baker, E. R., et al. 310

Barsky, E. L., Gusev, M. V., Nikitina, K. A., Samuilov, V. D.
Light-Induced Proton Translocation Through Thylakoid and Cytoplasmic Membranes of *Plectonema boryanum* 105

Barz, W., s. Etten, H. D., Van 56

Beatty, J. T., Gest, H.
Generation of Succinyl-Coenzyme A in Photosynthetic Bacteria 335

Beeftink, H. H., s. Gemerden, H., van 32

Benseler, W., s. Reisser, W. 178

Benson, R., Martin, E.
Effects of Photosynthetic Inhibitors and Light-Dark Regimes on the Replication of Cyanophage SM-2 165

Betlach, M. R., Tiedje, J. M., Firestone, R. B.
Assimilatory Nitrate Uptake in *Pseudomonas fluorescens* Studied Using Nitrogen-13 135

Beudeker, R. F., Codd, G. A., Kuenen, J. G.
Quantification and Intracellular Distribution of Ribulose-1,5-Bisphosphate Carboxylase in *Thiobacillus neapolitanus,* as Related to Possible Functions of Carboxysomes 361

Beudeker, R. F., Kerver, J. W. M., Kuenen, J. G.
Occurrence, Structure and Function of Intracellular Polyglucose in the Obligate Chemolithotroph *Thiobacillus neapolitanus* 221

Bhattacharjee, J. K., s. Foy, J. J. 216

Boos, W., Staehelin, A. L.
Ultrastructural Localization of the Maltose-Binding Protein Within the Cell Envelope of *Escherichia coli* 240

Borbély, G., s. Friga, G. M., et al. 341

Bornefeld, T.
Is Light-Dependent Formation of Inorganic Pyrophosphate in *Anacystis* a Photosynthetic Process? 371

Bos, R. C. van den, Broughton, W. J.
Viability of *Rhizobium leguminosarum* Endosymbionts in Different Stages of Development 349

Breuil, C., s. Patel, G. B. 265

Broughton, W. J., s. Bos, R. C. van den 349

Brown, A. D., s. Kessly, D. S. 154

Bryant, D. A., Cohen-Bazire, G., Glazer, A. N.
Characterization of the Biliproteins of *Gloeobacter violaceus.* Chromophore Content of a Cyanobacterial Phycoerythrin Carrying Phycourobilin Chromophore 190

Bryant, D. A., s. Guglielmi, G., et al. 181

Burnham, J. C., Collart, S. A., Highison, B. W.
Entrapment and Lysis of the Cyanobacterium *Phormidium luridum* by Aqueous Colonies of *Myxococcus xanthus* PCO2 285

Cerniglia, C. E., Crow, S. A.
Metabolism of Aromatic Hydrocarbons by Yeasts 9

Clark, A. J., s. Cotton, N. P. J., et al. 94

Claus, D., s. Malik, K. A., et al. 254

Codd, G. A., s. Beudeker, R. F., et al. 361

Cohen-Bazire, G., s. Bryant, D. A., et al. 190

Cohen-Bazire, G., s. Guglielmi, G., et al. 181

Collart, S. A., s. Burnham, J. C., et al. 285

Cordier, J.-L., s. Huber, H. E., et al. 14

Cotton, N. P. J., Clark, A. J., Jackson, J. B.
The Effect of Venturicidin on Light and Oxygen-Dependent Electron Transport, Proton Translocation, Membrane Potential Development and ATP Synthese in Intact Cells of *Rhodopseudomonas capsulata* 94

Crawford, R. L., Crawford, D. L., Dizikes, G. J.
Catabolism of the Lignin Substructure Model Compounds Dehydrodivanillin by a Lignin-Degrading *Streptomyces* 204

Crawford, D. L., s. Crawford, R. L., et al. 204

Croes, A. F., Oord, J. F. van den, Tromp, A. G. G. M.
Changes in the Adenylate Energy Charge and the Induction of Sporulation in *Saccharomyces diasticus* 47

Crow, S. A., s. Cerniglia, C. E. 9

Cruden, D. L., Markovetz, A. J.
Relative Numbers of Selected Bacterial Forms in Different Regions of the Cockroach Hindgut 129

Dagestad, D., Lien, T., Knutsen, G.
Degradation and Compartmentalization of Urea in *Chlamydomonas reinhardii* 261

DeAngelis, B., s. Baker, E. R., et al. 310

Degryse, E., Glansdorff, N.
Studies on the Central Metabolism of *Thermus aquaticus,* an Extreme Thermophilic Bacterium: Anaplerotic Reactions and Their Regulation 173

Dijken, J. P. van, s. Levering, P. R., et al. 72

Dilworth, M. J., s. Glenn, A. R. 233

Di Martino Rigano, V., s. Rigano, C., et al. 110

Dizikes, G. J., s. Crawford, R. L., et al. 204

Dogra, R. C., s. Pahwa, K. 380

Ebersold, H.-R., s. Huber, H. E., et al. 14

Enoki, A., Goldsby, G. P., Gold, M. H.
β-Ether Cleavage of the Lignin Model Compound 4-Ethoxy-3-methoxyphenylglycerol-β-guaiacyl Ether and Derivatives by *Phanerochaete chrysosporium* 141

Farkas, G. L., s. Friga, G. M. 331

Farkas, G. L., s. Friga, G. M., et al. 341

Fehr, S., Richter, D.
The Stringent Response to Unacylated tRNA, Energy- and Temperature-Downshift in *Bacillus stearothermophilus* 29

Feingold, S., s. Baker, E. R., et al. 310

Fiedler, F., Schäffler, M. J., Stackebrandt, E.
Biochemical and Nucleic Acid Hybridisation Studies of *Brevibacterium linens* and Related Strains 85

Finazzo, S. F., s. Smith, D. W. 199

Firestone, R. B., s. Betlach, M. R., et al. 135

Foy, J. J., Bhattacharjee, J. K.
Concentration of Metabolites and the Regulation of Phosphofructokinase and Fructose-1,6-Bisphosphatase in *Saccharomyces cerevisiae* 216

Frank, G., s. Füglistaller, P., et al. 268

Frank, O., s. Baker, E. R., et al. 310

Friedrich, B., s. Schlesier, M. 150

Friga, G. M., Borbély, G., Farkas, G. L.
Accumulation of Guanosine Tetraphosphate (ppGpp) Under Nitrogen Starvation in *Anacystis nidulans*, a Cyanobacterium 341

Friga, G. M., Farkas, G. L.
Isolation and Properties of an Isocitrate Dehydrogenase from *Anacystis nidulans* 331

Füglistaller, P., Widmer, H., Sidler, W., Frank, G., Zuber, H.
Isolation and Characterization of Phycoerythrocyanin and Chromatic Adaptation of the Thermophilic Cyanobacterium *Mastigocladus laminosus* 268

Fuggi, A., s. Rigano, C., et al. 110

Fujimura, H., s. Yanagishima, N. 281

Gatenbeck, S., s. Svensson, M.-L. 213

Gatenbeck, S., s. Svensson, M.-L., et al. 210

Gemerden, H. van, Beeftink, H. H.
Coexistence of *Chlorobium* and *Chromatium* in a Sulfide-Limited Continuous Culture 32

Gemerden, H. van, s. Wijbenga, D.-J. 115

Gest, H., s. Beatty, J. T. 335

Giddings, T. H., Jr., Staehelin, L. A.
Observation of Microplasmodesmata in Both Heterocyst-Forming and Non-Heterocyst Forming Filamentous Cyanobacteria by Freeze-Fracture Electron Microscopy 295

Glansdorff, N., s. Degryse, E. 173

Glazer, A. N., s. Bryant, D. A., et al. 190

Glenn, A. R., Dilworth, M. J.
The Uptake and Hydrolysis of Disaccharides by Fast- and Slow-Growing Species of *Rhizobium* 233

Glover, H. E., Morris, I.
Photosynthetic Characteristics of Coccoid Marine Cyanobacteria 42

Gold, M. H., s. Enoki, A., et al. 141

Goldsby, G. P., s. Enoki, A., et al. 141

Gottschal, J. C., Pol, A., Kuenen, J. G.
Metabolic Flexibility of *Thiobacillus* A2 During Substrate Transitions in the Chemostat 23

Gregory, M., s. Linton, J. D., et al. 119

Griffiths, K., s. Linton, J. D., et al. 119

Güde, H., Strohl, W. R., Larkin, J. M.
Mixotrophic and Heterotrophic Growth of *Beggiatoa alba* in Continuous Culture 357

Guglielmi, G., Cohen-Bazire, G., Bryant, D. A.
The Structure of *Gloeobacter violaceus* and its Phycobilisomes 181

Guillaume, J. B., s. Ali, H., et al. 391

Gusev, M. V., s. Barsky, E. L., et al. 105

Häder, D.-P.
Effects of Inhibitors on Photomovement in Desmids 168

Harder, W., s. Levering, P. R., et al. 72

Harder, W., s. Veenhuis, M., et al. 35

Hastings, J. W., s. Ulitzur, S., et al. 67

Heinen, W., Lauwers, A. M.
Growth of Bacteria at 100°C and Beyond 127

Herdman, M.
Deoxyribonucleic Acid Base Composition and Genome Size of *Prochloron* 314

Highison, B. W., s. Burnham, J. C., et al. 285

Higuchi, T., s. Kamaya, Y., et al. 305

Higuchi, T., s. Shimada, M., et al. 321

Hippchen, B., Röll, A., Poralla, K.
Occurrence in Soil of Thermo-Acidophilic Bacilli Possessing ω-Cyclohexane Fatty Acids and Hopanoids 53

Huber, H. E., Lüthy, P., Ebersold, H.-R., Cordier, J.-L.
The Subunits of the Parasporal Crystal of *Bacillus thuringiensis*: Size, Linkage and Toxicity 14

Hütter, R., s. Stäheli, P., et al. 146

Hunter, S. H., s. Baker, E. R., et al. 310

Imura, N., s. Pan-Hou, H. S. K. 49

Inoue, H., Shimoda, C.
Changes in Trehalose Content and Trehalase Activity During Spore Germination in Fission Yeast, *Schizosaccharomyces pombe* 19

Iwahara, S., s. Kamaya, Y., et al. 305

Jackson, J. B., s. Cotton, N. P. J. 94

Jung, C., s. Malik, K. A., et al. 254

Kamaya, Y., Nakatsubo, F., Higuchi, T., Iwahara, S.
Degradation of *d,l*-Syringaresinol, a β-β Linked Lignin Model Compound, by *Fusarium solani* M-13-1 305

Kelley, B. C., Nicholas, D. J. D.
Inhibition of Nitrogenase Activity by Metronidazole in *Rhodopseudomonas capsulata* 344

Kent Kirk, T., s. Shimada, M., et al. 321

Kerver, J. W. M., s. Beudeker, R. F., et al. 221

Kessly, D. S., Brown, A. D.
Salt Relations of *Dunaliella*. Transitional Changes in Glycerol Content and Oxygen Exchange Reactions on Water Stress 154

Khuller, G. K., s. Taneja, R., et al. 81

King, W. R., s. Andersen, K., et al. 384

Knutsen, G., s. Dagestad, D., et al. 261

Kradolfer, P., s. Stäheli, P., et al. 146

Kröger, A., Winkler, E.
Phosphorylative Fumarate Reduction in *Vibrio succinogenes:* Stoichiometry of ATP Synthesis 100

Kuenen, J. G., s. Beudeker, R. F., et al. 221, 361

Kuenen, J. G., s. Gottschal, J. C., et al. 23

Larkin, J. M., s. Güde, H., et al. 357

Lauwers, A. M., s. Heinen, W. 127

Leigh, J. A., Mayer, F., Wolfe, R. S.
Acetogenium kivui, a New Thermophilic Hydrogen-Oxidizing Acetogenic Bacterium 275

Levering, P. R., Dijken, J. P. van, Veenhuis, M., Harder, W.
Arthrobacter P1, a Fast Growing Versatile Methylotroph with Amine Oxidase as a Key Enzyme in the Metabolism of Methylated Amines 72

Lien, T., s. Dagestad, D., et al. 261

Linton, J. D., Griffiths, K., Gregory, M.
The Effect of Mixtures of Glucose and Formate on the Yield and Respiration of a Chemostat Culture of *Beneckea natriegens* 119

Lüthy, P., s. Huber, H. E., et al. 14

Malik, K. A., Jung, C., Claus, D., Schlegel, H. G.
Nitrogen Fixation by the Hydrogen-Oxidizing Bacterium *Alcaligenes latus* (Short Communication) 254

Markovetz, A. J., s. Cruden, D. L. 129

Martin, E., s. Benson, R. 165

Mayer, F., s. Leigh, J. A., et al. 275

McFadden, B. A., s. Storrø, I. 317

McLaughlin, J. J. A., s. Baker, E. R., et al. 310

Metzler, H.
The Influence of Organic Substrates and Inhibitors on the Induction of a Respiratory Oscillation in the Cyanobacterium *Anacystis nidulans* 123

Morris, I., s. Glover, H. E. 42

Mur, L. R., s. Zevenboom, W. 61

Nakatsubo, F., s. Kamaya, Y., et al. 305

Nakatsubo, F., s. Shimada, M., et al. 321

Nealson, K. H., s. Rosson, R. A. 299

Nicholas, D. J. D., s. Kelley, B. C. 344

Niederberger, P., s. Stäheli, P., et al. 146

Niel, C., s. Ali, H., et al. 391

Nies, M., Wehrmeyer, W.
Biliprotein Assembly in the Hemidiscoidal Phycobilisomes of the Thermophilic Cyanobacterium *Mastigocladus laminosus* Cohn. Characterization of Dissociation Products with Special Reference to the Peripheral Phycoerythrocyanin-Phycocyanin Complexes 374

Nikitina, K. A., s. Barsky, E. L., et al. 105

Nill, K., s. Seibold, M., et al. 368

Oord, J. F. van den, s. Croes, A. F., et al. 47

Orlowski, M., Ross, J. F.
Relationship of Internal Cyclic AMP Levels, Rates of Protein Synthesis and Mucor Dimorphism 353

Pahwa, K., Dogra, R. C.
H_2-Recycling System in Mungbean *Rhizobium* in Relation to N_2-Fixation 380

Pan-Hou, H. S. K., Imura, N.
Role of Hydrogen Sulfide in Mercury Resistance Determined by Plasmid of *Clostridium cochlearium* 49

Patel, G. B., Breuil, C.
Accumulation of an Iodophilic Polysaccharide During Growth of *Acetivibrio cellulolyticus* on Cellobiose 265

Pazoutová, S., Rehácek, Z.
The Role of Citrate on the Oxidative Metabolism of Submerged Cultures of *Claviceps purpurea* 129 251

Pfennig, N., s. Widdel, F. 395, 401

Pol, A., s. Gottschal, J. C., et al. 23

Poralla, K., s. Hippchen, B., et al. 53

Poralla, K., s. Seibold, M., et al. 368

Rehácek, Z., s. Pazoutová, S. 251

Reinhertz, A., s. Ulitzur, S., et al. 67

Reisser, W., Benseler, W.
Comparative Studies on Photosynthetic Enzymes of the Symbiotic *Chlorella* from *Paramecium bursaria* and Other Symbiotic and Non-symbiotic *Chlorella* Strains (Short Communication) 178

Rhoads, D. D., s. Sarachek, A., et al. 1

Richter, D., s. Fehr, S. 29

Rigano, C., Di Martino Rigano, V., Vona, V., Fuggi, A.
Nitrate Reductase and Glutamine Synthetase Activities, Nitrate and Ammonia Assimilation, in the Unicellular Alga *Cyanidium caldarium* 110

Röll, A., s. Hippchen, B., et al. 53

Ross, J. F., s. Orlowski, M. 353

Rosson, R. A., Nealson, K. H.
Autoinduction of Bacterial Bioluminescence in a Carbon Limited Chemostat 299

Samuilov, E. L., s. Barsky, E. L., et al. 105

Sarachek, A., Rhoads, D. D., Schwarzhoff, R. H.
Hybridization of *Candida albicans* Through Fusion of Protoplasts 1

Schäffler, M. J., s. Fiedler, F., et al. 85

Schlegel, H. G., s. Malik, K. A., et al. 254

Schlesier, M., Friedrich, B.
In vivo Inactivation of Soluble Hydrogenase of *Alcaligenes eutrophus* 150

Schrauwen, J. A. M.
Post-Fusion Incompatibility in *Physarum polycephalum.* The Involvement of DNA 257

Schwarzhoff, R. H., s. Sarachek, A., et al. 1

Seibold, M., Nill, K., Poralla, K.
Homoserine and Threonine Pools of Borrelidin Resistant *Saccharomyces cerevisiae* Mutants with an Altered Aspartokinase 368

Shimada, M., Nakatsubo, F., Kent Kirk, T., Higuchi, T.
Biosynthesis of the Secondary Metabolite Veratryl Alcohol in Relation to Lignin Degradation in *Phanerochaete chrysosporium* 321

Shimoda, C., s. Inoue, H. 19

Sidler, W., s. Füglistaller, P., et al. 268

Smith, D. W., Finazzo, S. F.
Salinity Requirements of a Marine *Thiobacillus intermedius* 199

Stackebrandt, E., s. Fiedler, F., et al. 85

Stäheli, P., Kradolfer, P., Niederberger, P., Hütter, R.
Inhibition of Yeast $tRNA^{TRP}$ Aminoacylation by 4-Methyltryptophan 146

Staehelin, A. L., s. Boos, W. 240

Staehelin, L. A., s. Giddings, T. H. 295

Stille, B.
Obituary Hermann Bortels, 1902–1979 109

Storrø, I., McFadden, B. A.
Glycolate Excretion by *Rhodospirillum rubrum* 317

Strohl, W. R., s. Güde, H., et al. 357

Srivastava, O. P., Aronson, A. I.
Isolation and Characterization of a Unique Protease from Sporulating Cells of *Bacillus subtilis* 227

Svensson, M.-L., Gatenbeck, S.
The Presence of Two Serine Racemases in *Streptomyces garyphalus*, a D-Cycloserine Producer 213

Svensson, M.-L., Valerie, K., Gatenbeck, S.
Hydroxyurea, a Natural Metabolite and an Intermediate in D-Cycloserine Biosynthesis in *Streptomyces garyphalus* 210

Tait, R. C., s. Andersen, K., et al. 384

Taneja, R., Khuller, G. K.
Phospholipid Metabolism in *Mycobacterium smegmatis* ATCC 607 Grown at 37°C and 27°C 81

Tiedje, J. M., s. Betlach, M. R., et al. 135

Tromballa, H. W., s. Zdrou, I. 325

Tromp, A. G. G. M., s. Croes, A. F., et al. 47

Ulitzur, S., Reinhertz, A., Hastings, J. W.
Factors Affecting the Cellular Expression of Bacterial Luciferase 67

Urbanek, H., s. Zalewska-Sobczak, J.

Valerie, K., s. Svensson, M.-L., et al. 210

Van Etten, H. D., Barz, W.
Expression of Pisatin Demethylating Ability in *Nectria haematococca* 56

Veenhuis, M., s. Levering, P. R., et al. 72

Veenhuis, M., Zwart, K. B., Harder, W.
Biogenesis and Turnover of Peroxisomes Involved in the Concurrent Oxidation of Methanol and Methylamine in *Hansenula polymorpha* 35

Vona, V., s. Rigano, C., et al. 110

Wehrmeyer, W., s. Nies, M. 374

Widdel, F., Pfennig, N.
Studies on Dissimilatory Sulfate-Reducing bacteria that Decompose Fatty Acids. I. Isolation of New Sulfate-Reducing Bacteria Enriched with Acetate from Saline Environments. Description of *Desulfobacter postgatei* gen. nov., sp. nov. 395

Widdel, F., Pfennig, N.
Sporulation and Further Nutritional Characteristics of *Desulfotomaculum acetoxidans* (Short Communication) 401

Widmer, H., s. Füglistaller, P., et al. 268

Wijbenga, D.-J., Gemerden, H. van
The Influence of Acetate on the Oxidation of Sulfide by *Rhodopseudomonas capsulata* 115

Winkler, E., s. Kröger, A. 100

Wolfe, R. S., s. Leigh, J. A., et al. 275

Wright III, W., Aronson, A. I.
Specificity of Translation of Spore Polypeptides in Bacillus in vitro Systems 160

Yanagishima, N., Fujimura, H.
Sex Pheromones of the Yeast *Hansenula wingei* and Their Relation to Sex Pheromones in *Saccharomyces cerevisiae* and *Saccharomyces kluyveri* 281

Zalewska-Sobczak, J., Urbanek, H.
Cellulose and Xylan Degrading Enzymes of *Fusarium avenaceum* 247

Zdrou, I., Tromballa, H. W.
Active Transport of Chloride by *Anacystis nidulans* 325

Zevenboom, W., Mur, L. R.
Ammonium-Limited Growth and Uptake by *Oscillatoria agardhii* in Chemostat Cultures 61

Zuber, H., s. Füglistaller, P., et al. 268

Zwart, K. B., s. Veenhuis, M., et al. 35

Indexed in Current Contents